UNITED STATES PATENT OFFICE

In Re Application of: **Michael Orr**	§	Confirmation Number: **5618**
Serial No.: **09/788,545**	§	Group Art Unit: **3627**
Filed: **21 Feb. 2001**	§	Examiner: **REFAI, Ramsey**
Title: **A SYSTEM AND METHOD TO ACCELERATE CLIENT/SERVER INTERACTION USING PREDICTIVE REQUESTS**	§	Atty. Docket Number: **06001.1003**

APPEAL BRIEF

Mail Stop Appeal
Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

To the Office:

Applicant's attorneys are now in receipt of an official communication mailed by the Office on November 25, 2008 in the form of a final office action (the Office Action). The applicants are submitting a request for continued examination in response to this final office action and have prepared this paper as a full response to the outstanding final office action. The applicant respectfully submits that the present case is in condition for allowance.

Real Party in Interest

The real party in interest for this case is **FLASH NETWORKS, LTD,** the appellant, which has a place of business at 7 Sapir Road, P.O. Box 12624, Herzliya Israel 467334.

Related Appeals and Interferences

The appellant and its legal representative do not have any knowledge of any applications, patents, appeals or interferences or other prior and pending appeals, interferences or judicial proceedings that are related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

Status of Claims

On October 28, 2008 the applicant file a request for continued examination along with a preliminary amendment for this case. The Office then issued a final office action as a first action in the continued examination on November 25, 2008. From this point, the applicants filed a pre-appeal brief with a request for review. As such, the state of the claims as presented in the October 28, 2008 preliminary amendment have been entered and represent the current state of the claims before the Office.

The current claims are number 1-33 and have the following current status:

Claims 1, 2, 7-9, 11, 12, 15, 17-19 and 21 currently stand rejected by the Office.

Claims 3-6, 10, 13, 14, 16, 20 and 22-33 have been previously canceled.

The claims that are being appealed include claims 1, 2, 7-9, 11, 12, 15, 17-19 and 21.

Claims 1 and 11 are the only independent claims with claims 2 and 7-9 depending from claim 1 and claims 12, 15, 17-19 and 21 depending from claim 11.

Status of Amendments

No amendments have been filed subsequent to the final rejection and as such, the claims as presented in the October 28, 2008 preliminary amendment have been entered and are currently of record.

Summary of Claimed Subject Matter

Summary of claim 1:

Claim 1 is a system claim that enhances the perceived throughput between a client and a server. [Paragraph 0013] It is well known that "Perceived" throughput is viewed from the client's perspective as opposed to "actual" throughput which would focus on the amount of data transmitted over a network. Thus, the claimed system operates to create the perception to the user or the client, that web page requested from a server is delivered from the server more rapidly by actually (a) pre-fetching data objects that are needed for presenting the requested web page and (b) having the pre-fetched data available to the client at a location from which the data can actually be delivered more rapidly. The focus of the claimed system is to improve the user experience by rendering a current requested web page with reduced delays. [See paragraphs 0003, 0004]

The system includes two main elements: a predictive server and a client agent. [Paragraphs 0014 and 0018] In general, the predictive server is associated with a server and includes a server analyzer unit and a server storage unit. Further, the client agent is associated with a client and includes an agent analyzer unit and an agent storage unit. [Paragraphs 0004 and 0015] These elements are communicatively situated between a client and a server in which a client can submit a request for a web page from the server. [Paragraphs 0018-0019 and Fig. 1]

When such a request for a web page is presented to the server, the predictive server analyzer unit receives a first response from the server and then generates at the predictive server storage unit a list of requests for objects which are predicted to be needed for presenting the requested web page. The predictive server then sends the predictive requests that were generated to the server and receives a predictive response for each request. The first response received by the predictive server and the predictive responses, are sent to the client agent. [Paragraphs 0024-0025 and Figs. 2]

The client agent receives the first response and automatically forwards the first response to the client. Subsequently, the client may send further requests for additional content that is needed to

display the web page. When the client agent receives an additional request from the client for an object contained in the first response, the client agent compares the request to the already received responses, and if a correct response has already been received, it is sent to the client. Thus, the content is then provided directly from the client agent without having to experience the data throughput delay associated with sending the requests to the server and receiving the responses. [Paragraphs 0027 and Fig. 2]

Summary of Claim 11:

Claim 11 is a method which recites steps for enhancing the perceived throughput for the delivery of a requested web page between a server and a client. [Paragraph 0013] It is well known that "Perceived" throughput is viewed from the client's perspective as opposed to "actual" throughput which would focus on the amount of data transmitted over a network. Thus, the claimed system operates to create the perception to the user or the client, that a web page requested from a server is delivered from the server more rapidly by actually (a) pre-fetching the data objects that are needed for presenting the requested web page and (b) having the pre-fetched data objects available to the client at a location from which the data can actually be delivered more rapidly. The focus of the claimed system is to improve the user experience by rendering the currently requested web page with reduced delays. [See paragraphs 0003, 0004]

The steps are performed by one of two components including a predictive server and a client agent. [Paragraphs 0014 and 0018] When a client requests a web page from the server, the server sends a first response which is then analyzed and used to generate a list of additional predictive requests that are predicted to be subsequently made by a client for obtaining objects necessary to present the requested web page. These generated predictive requests are sent to the server and predictive responses are received. The first response, as well as these additional predictive responses, are sent to the client agent which in turns delivers the first response to the client. [Paragraphs 0024-0025 and Fig. 2]

In rendering the currently requested web page, the client may issue a request for an object needed for rendering the web page. This request is received by the client agent and, if the client agent has a response for such request, it forwards the response to the client without the client having to

wait for the request to propagate back to the server and the response to propagate back to the client. [Paragraphs 0027 and Fig. 2]

Grounds of Rejection to be Reviewed on Appeal

The current rejections that are being presented for review on appeal are two-fold:

(1) The Office has presented a rejection of claims 1, 2, 7-8, 11, 12, 15, 17-18 and 21 under 35 USC 102(e) as being anticipated by United States Patent Number 7,047,485 issued in the name of Klein.

(2) The Office has rejected claims 9 and 19 under 35 U.S.C. 103(a) as being upatentable over Klein et al in view of Official Notice.

Rejections under 35 U.S.C. 102(e)

The Office has relied upon the Klein reference in rejecting the above-identified claims. In rejecting the claims, the Examiner equates the following elements in Klein to the identified claimed elements:

Klein Elements	**Claimed Elements**
Browser 110	Client
Applet 124	Client Agent
Web Agent 116	Predictive Server
Web Server 112	Server

With regards to rejections of claim 1, the examiner has presented the following grounds of rejection:

(a) the Examiner alleges that claim element of "a predictive server in association with said server, wherein said predictive server comprises a server analyzer unit and a server storage unit" is described at column 6, lines 10-20 and Fig. 1. In essence, the Examiner is equating the Web Agent 116 that is running on the web server 112 to the claimed predictive server.

(b) The Examiner alleges that the element of "a client agent in association with the client, wherein the client agent comprises an agent analyzer unit and an agent storage unit" is described

in column 6, lines 64-67 and Fig. 1. Here the Examiner is equating the Java Applet 124 running on the client 104 to the client agent.

(c) The Examiner alleges that the element of "the predictive server analyzes, at the predictive server analyzer unit, a first response that is received from said server acting on a request for a web page" is describe in column 5, lines 28-38.

(d) The Examiner alleges that the element of "and, accordingly generates at the predictive server storage unit a predictive list of requests for objects which are needed for presenting the requested web page" is described in column 6 lines 10-29.

(e) The Examiner alleges that the element of "and wherein the predictive server further issues predictive requests to the server, receives predictive responses from the server" is described in column 6 lines 24-36. Here the Examiner states that request for web objects in an object list are made to the web server 112 which can then obtain the requested object from the application server 114 citing column 5, lines 35-38.

(f) It is noted that the Examiner did not cite any basis to support rejection including the element of " and forwards the first response and the received predictive responses to the client agent".

(g) The Examiner alleges that the element of "wherein the client agent receives, with the agent analyzer unit of the client agent, via the predictive server, the first response" is described in column 5, lines 28-38.

(h) The Examiner alleges that the element of "analyzes the first response" is described in column 6, lines 34-67.

(i) The Examiner alleges that the element of "automatically forwards said first response to the client" is described in column 6 lines 28-36.

(j) The Examiner alleges that the element of "receives from the client a request for an object contained in the first response and is needed for presenting the requested web page" is disclosed in column 7 lines 1-37.

(k) The Examiner alleges that the element of "compares the request for said object with the already received predicted responses, and when an already received corresponding predicted response exists, the existing predictive response is forwarded to the client" is disclosed in column 5, lines 39-45 and column 3 lines 43-59.

With regards to claim 2, the Examiner has presented the following grounds of rejection:

(l) The Examiner alleges that the element of "wherein the client agent further compares the request against an agent's predictive list which is generated based on the client agent analyzing the first response, and if no entry for that request for an object is found, the request is forwarded towards the server" is described in column 6 lines 10-53. The Examiner states that the pre-caching operates by first checking to see if the object requested is available prior to sending the request to the server.

With regards to claim 7, the Examiner has presented the following grounds of rejection:

(m) The Examiner alleges that the element of "wherein said client agent receives requests from said client and forwards the requests to said predictive unit using encapsulation" is described in column 4, lines 15-28. The Examiner states that the request is sent in web pages.

With regards to claim 8, the Examiner has presented the following grounds of rejection:

(n) The Examiner alleges that the element of "wherein data transmitted between said client agent and said predictive server undergoes a data processing step selected from a group consisting of data compression, partial information transfer, protocol conversion, and data packet combining" is described in column 3, lines 59-63.

With regards to claim 21, the Examiner has presented the following grounds of rejection:

(o) The Examiner alleges that the element of "wherein said client agent is further capable of issuing a re-load command" is described in column 4, lines 15-27.

With regards to claims 11, 12, 15 and 17-18, the Examiner alleges that these claim recite similar elements and are summarily rejected under the same rational as the rejections for claims 1, 2, 7, 8 and 21.

Rejections under 35 U.S.C. 103(a)

The Examiner has relied upon the Klein reference in view of Official Notice in rejecting the above-identified claims.

The Examiner continues to allege that official notice applies in the support of rejecting claim 9 and 19 as being obvious.

With regards to claim 9, the Examiner has presented the following grounds of rejection:

(p) The Examiner admits that Klein does not teach the element of "wherein the client agent is adapted to transmit a fake response to a client before a real response from said server has been received." However, the Examiner alleges that such an action is well known in the art.

Argument

Overview

At the onset, it will be of great benefit to address the overall fundamental differences between the claims and Klein. It is clear that the claimed invention and the Klein reference are indeed addressing related technologies and short-comings in the technology. Basically, both the claimed invention and Klein focus on providing web content to a client in a more expeditious manner to decrease the time delays experienced by a user when browsing the Internet or the World Wide Web. However, the present invention and Klein not only present different solutions but also are addressing different aspects of the problem.

Claims 1, 2, 7-8, 11, 12, 15, 17-18 and 21 are not anticipated by Klein

The Office has presented the above-grounds of rejection for each of these recited claims but, only specifically addresses claims 1, 2, 7, 8 and 21. The arguments presented below are in support of claims 1, 2, 7-8, 11, 12, 15, 17-18 and 21 and are not limited to the specifically itemized claims.

Argument 1: *Klein is focused on a web page to web page transition level, whereas the claimed invention is focused on a single web page request level, not web page to web page transitions.*

Klein is focused on a web page to web page transition level.

Klein describes two embodiments, both of which are focused on web page to web page transitions. In the intelligent pre-caching Java Applet embodiment beginning at column 5 and line 21, Klein describes the process beginning by an interaction with the Web Browser 110, such as mouse click, generating a transaction to request a web page. This request is sent to the Web Server 112. As a result of the request, the Web Server 112 obtains a complete or resultant web page. As clearly described in Klein, the Web Server 112, and/or the Application Server 114,

service the transaction locally and ultimately, the Web Server 112 will have returned to it a resultant web page that was build by Web Server's 112 local processing or Web Application's 114 additional processing. [Col. 5 lines 35-40] Klein describes further that a special HTML tag is added to the existing web page to define a Java Applet 124 (which the Examiner equates to the claimed Client Agent).

Klein then states explicitly that once a web page has a Java Applet tag as part of the page, the web page is transmitted to the Web Browser 110 over the network. Col. 5 line 66-67.

When the web page is received by the Web Browser 110, the Java Applet program 124 is then retrieved by the Web Browser 110 sending a request the Web Server 112. The Java Applet 124 is received and then executed as a program within and under the control of the Web Browser 110. Col. 6, lines 1-9.

The Java Applet then sends a request over the network to Web Agent 116 to obtain statistical information that relates to which web page is most often accessed directly after the current web page being viewed by the Web Browser 110. The Web Agent provides to the Java Applet 124 the mostly likely to be access next web page and an object list 126 of web page objects 128. Col. 6 lines 10-24. Of very importance is (1) the fact that Klein states that the Web Objects 128 would be requested on the NEXT Web Browser transaction Col. 6 lines 40-43, (2) Klein does not describe any activity associated with retrieving the currently requested web page and (3) Klein does not describe any process or component that receives a first response to a currently requested web page and then begins to request objects necessary for presenting that web page while the currently requested web page is being loaded (Klein has already moved on to the next potential web page). In contrast, in Col. 6 lines 53-63, Klein teaches that the intelligent pre-caching process is halted immediately. The immediacy is important so that the pre-caching process does not interfere with the performance of the new web page request and actually slow up that web page's accesses.

The second embodiment, the Partial Intelligent Pre-Caching technique is described beginning at column 6 and line 63. Similar to the intelligent pre-caching embodiment, this is a web page to web page transition level focus. This is confirmed by Klein stating that the object list only contains names of web pages. Col. 7 lines 10-12. Further, Klein again states that the object list

is for the Web Browser 110 on subsequent Web Browser 110 transactions (in that there would be no purpose for the list to identify the currently displayed web page). Col. 7 lines 27-28
Thus, it is clear that in both embodiments, Klein describes receiving an entire, complete, resultant web page in response to the Browser 110 sending a request. And then, a web page and/or objects for a next web page are fetched and cached so that when the next web page is requested, it can be delivered more expediently. This is a web page to web page transition focus that helps reduce the time to switch from a currently viewed web page to the next web page.

The claims of the application on appeal are focused on a single web page request level
The present claims focus on reducing the time for a client device to render a web page on the client device. As such, a request for a web page is sent to a server. A predictive server intercepts the server first response but, the response is still also sent to a client agent and ultimately the client. It is to be noted that here, the server provides a first response to the request – this is a markup language file that describes a web page. This first response is intercepted by the predictive server, processed and then the objects required for THAT requested web page are then retrieved by the predictive server and sent to the client agent.
When the client receives the first response, the client then begins to make requests to build the web page (this process is performed by the Web Server 112 in Klein [col. 5 lines 35-40]). These requests are intercepted by the client agent and if possible, are responded by the client agent directly. As a result, the currently requested web page can be built more rapidly by (a) eliminating the time required for the client to process the response and begin to make requests and (b) by eliminating some of the propagation delays that would be realized if the objects of the web page were not already received by the client agent.
Thus, it is clear that the present claims are focused on a single web page request. At the "NEXT Web Browser transaction", the present claims start this process all over again by sending the request to the server, receiving the first response and then obtaining predicted requests.

Argument 2: The structures described in Klein to not equate to the structures recited in the claims.

The Office alleges that the Web Agent 116 equates to the recited predictive server and that the Java Applet 124 equates to the client agent. The applicant has presented arguments as to why this is not the case in previous responses and repeats them here again for clarity.

Klein describes sending a request for a web page to a web server 112. Col. 5 lines 28-31. The web server 112 can process this request or forward it to an application server 114. Col. 5 lines 31-38. The web server 112 then receives a resultant web page built by local processing or web application 114. Col 5, lines 39-41. The web page is then transmitted to the web browser 110 over the network 102. Col. 5, line 66 to col. 6 line 1. If the web page includes a tag for Java Applet program, this Java Applet program can be requested over the network by the web browser 110 and once received, executed as a program. Col. 6 lines 1-8. This Java Applet then makes requests to the Web Agent 116 which provides an object list to the Java Applet and the Java Applet then makes requests for those items in the object list.

First of all, as previously stated, the object list identifies objects to be fetched in response to a next web browser transaction, not the current transaction. But further, the claims recite that the predictive server, which the Examiner has compared to the Web Agent 116 makes the requests for objects. However, in Klein, the Java Applet 124, which the Examiner equates to the recited client agent, is described as making these requests. Thus, based on the Examiner's own interpretation of Klein, Klein fails to teach a predictive server (Web Agent 116) that fetches objects from the web server, much less objects to build a currently requested web page.

The Examiner has not presented the following analysis which the applicant submits is the closest that Klein can come to describing the claims. That is of equating the Java Applet program 124 that is invoked and running in conjunction with the Web Browser 110 on client platform 104 to the recited predictive server. Nonetheless, even in such a view, Klein fails to describe, suggest or teach the recited elements. The Java Applet 124 interacts with the web server 112 and the web agent 116 to identify most probable web pages or web page objects that are most often accessed next by a web browser given the currently viewed web page. This is NOT what the claimed invention is directed towards. The claimed invention focuses on processing a first response from a server to a request for a web page. It is clear from the claim language that this is a process that is being performed while a web page is being fetched and generated NOT while the web browser waiting idle for a user to make another request.

The office equates the recited element of the client agent to the Java Applet 124 described in Klein. However, as is clear from the Klein reference, the Java Applet 124 was not even active at the time that the first response to a requested web page is transferred to the browser 110, Klein teaches that the Web Browser 110 requests the Java applet 124 after receiving and analyzing the first response [Klein at Col. 5 line 66- Col. 6 line 8 and in Col. 9 lines 24-31]. As such, the Java Applet 124 cannot be the equivalent of the client agent which certainly must exist in order to receive the first response, analyze it and forward it to the client (the browser). Thus, the office cannot and must not equate the Java Applet 124 to the recited client agent.

The applicant submits one last possible interpretation that the Office may consider when examining Klein and comparing it to the present claims. In Klein, once the "currently" requested web page is delivered to the Web Browser 110, the Java Applet 124 is invoked. In this scenario the Java Applet 124 then begins to fetch objects or web pages that are most probable for the "next" transaction. If the Office equates this "next" transaction or request for a next web page to the claimed "current" web page, the applicants submit that this interpretation still fails to describe the present claims.

It is clear that in Klein, the Java Applet 124 begins fetching objects or web pages before a next web page is requested. [Col 6 lines 36-57] This, this interpretation of Klein does not describe the elements of receiving a first response following a request, analyzing the first response, and generating predictive requests based on the analysis

Thus, there is no relevant equivalent in operation between the recited claims and Klein, and as such, it is erroneous to attempt to stretch and redefine the elements of Klein to read on the recited claims. In attempting to operate in such a manner, the office tends to disregard recited elements of the claim as in the present case for "a first response that is received from said server".

Arguments against specific grounds of rejection for Claim 1

The Examiner has apparently grouped claim 1 and claim 11 and as such, these arguments are presented in support of both claims 1 and 11.

(a) With regards to rejections of claim 1, the Examiner alleges that claim element of "a predictive server in association with said server, wherein said predictive server comprises a server analyzer unit and a server storage unit" is described at column 6, lines 10-20 and Fig. 1. In essence, the Examiner is equating the Web Agent 116 that is running on the web server 112 to the claimed predictive server.

As presented above in Argument 2, Klein fails to show the equivalent of a predictive server as further defined in the claims and the specification.

(b) The Examiner alleges that the element of "a client agent in association with the client, wherein the client agent comprises an agent analyzer unit and an agent storage unit" is described in column 6, lines 64-67 and Fig. 1. Here the Examiner is equating the Java Applet 124 running on the client 104 to the client agent.

As presented above in Argument 2, Klein fails to show the equivalent of a client agent as further defined in the claims and the specification. Further, as presented in Argument 1, the Java Applet 124 is focused on obtaining a next web page. The cited Klein passage, extending to column 7 line 2 makes it clear the operation of the Java Applet 124 examining the web page contents is to identify a possible next web page. The recited agent analyzer examines a response to identify predicted objects that are needed for rendering the current requested web-page.

(c) The Examiner alleges that the element of "the predictive server analyzes, at the predictive server analyzer unit, a first response that is received from said server acting on a request for a web page" is describe in column 5, lines 28-38.

As presented above in Argument 2, Klein fails to show the equivalent of a predictive server as further defined in the claims and the specification. Further, as presented in Argument 1, even if Klein had the equivalent of a predictive server, it does not describe analyzing a first response received in response to a request for a web page. At best, Klein would analyze a web page, not a first response, to identify a next web page that may be requested. Further, the cited passage does

not even state that the Web Agent 116, which the Examiner equates to the predictive server, is the element that is doing the analysis, but rather states that the Web Server 112 is performing the analysis.

(d) The Examiner alleges that the element of "and, accordingly generates at the predictive server storage unit a predictive list of requests for objects which are needed for presenting the requested web page" is described in column 6 lines 10-29.

As presented above in Argument 2, Klein fails to show the equivalent of a predictive server storage unit that analyzes a first response to a request of a web-page and accordingly generates a list of requests for objects need for presenting the requested page. The cited passage focuses on the Java Applet 124 which the Examiner has already equated to the client agent, not the predictive server. Further, as presented in Argument 1, the Java Applet 124 does not even meet the recited actions because the Java Applet 124 is obtaining objects for a next requested web page, not the currently requested web page.

(e) The Examiner alleges that the element of "and wherein the predictive server further issues predictive requests to the server, receives predictive responses from the server" is described in column 6 lines 24-36. Here the Examiner states that request for web objects in an object list are made to the web server 112 which can then obtain the requested object from the application server 114 citing column 5, lines 35-38.

As presented above in Argument 2, Klein fails to show the equivalent of a predictive server that issues predictive requests to the server. In the passage cited in column 6, lines 24-36 it is clear that Java Applet 124, which the Examiner has equated to the client agent, is performing the requests. Thus, the Examiner is now trying to equate the Java Applet 124 to the predictive server and not the client agent. The Examiner then shifts gears again and then equates the Web Server 112 to the predictive server.

(f) It is noted that the Examiner did not cite any basis to support rejection including the element of "and forwards the first response and the received predictive responses to the client agent".

It is clear that this element was not addressed by the Examiner because, not only does the Examiner's analysis fall apart with regards to the above-listed arguments clearly showing that the predictive server and the client agent are not described in Klein, that even swapping out the equated structures (i.e, Web Agent 116 = predictive server and Java Applet 124 = client agent), there is simply no way to support a rejection. There is no structure in Klein's web agent 116 that operates to forward of a first response to the client agent. As is clear from column 5, lines 30-42, the Web Server 112, in response to a request for a web page, sends the requested web-page directly to the web browser 110.

(g) The Examiner alleges that the element of "wherein the client agent receives, with the agent analyzer unit of the client agent, via the predictive server, the first response" is described in column 5, lines 28-38.

The Examiner has equated the Java Applet 124 to the client agent. The cited passage does not even describe the Java Applet 124. In fact, it is not until the resultant web page is received by the Web Browser 110 that the HTML tag for the Java Applet 124 is even known. Col. 5 lines 66-67. Then, the Java Applet must be retrieved from the Server 106 (col. 6 lines 1-6) and only then, does the Java Applet 124 become active. At this point, the entire web page has already been received by the Web Browser and there is no need for a client agent to receive a first response. The first response would have been received before the Java Applet 124 was even known about by the Web Browser 110.

(h) The Examiner alleges that the element of "analyzes the first response" is described in column 6, lines 34-67.

As previously presented in rejection (g) and Argument 1, the cited passage is simply not relevant to the claim language. As is clear from the cited passage, Klein focuses on trying to accumulate content for a next requested web page. The element of analyzing the first response is only for the action of obtaining information regarding the currently requested web page. Klein is in a race to fetch the next statistically probably web page to be fetched. When a next Web Browser transaction is initiated, if the requested web page has been loaded, it is then displayed. However, the present invention analyzes the first response to get objects necessary for that requested web page.

(i) The Examiner alleges that the element of "automatically forwards said first response to the client" is described in column 6 lines 28-36.

In the cited passage, the Examiner again confuses the fundamental operation of the claimed invention. The cited passage describes the Java Applet 124 fetching objects for a next web page and placing them in the cache of the Web Browser 110. Although the claimed invention does operate to obtain objects before they are needed for rendering a web page, the present invention is focused on the currently requested web page, not a NEXT requested web page. Furthermore, the Java Applet 124 cannot deliver the first response to the client because the Java Applet is not active when the first response, the requested web page, reaches the client, as it is described above. The Java Applet is requested and is initiated by the client, the web browser 110, only after the client receives and parses the requested web-page. Consequently, the Java Applet 124 can not deliver the requested web page to the client, to the browser.

(j) The Examiner alleges that the element of "receives from the client a request for an object contained in the first response and is needed for presenting the requested web page" is disclosed in column 7 lines 1-37.

As presented above in Argument 1, Klein is focused on obtaining objects for a next requested web page, not the currently requested web page and items needed for presenting the same.

Column 7 lines 27-28 makes this clear stating that the objects are available to the Web Browser 110 on SUBSEQUENT Web Browser transactions.

(k) The Examiner alleges that the element of "compares the request for said object with the already received predicted responses, and when an already received corresponding predicted response exists, the existing predictive response is forwarded to the client" is disclosed in column 5, lines 39-45 and column 3 lines 43-59.

As presented above in Argument 1, Klein is focused on web page to web page transitions, whereas the claim language at issue is focused on objects for the currently requested web page. Further, in the cited paragraph column 5 lines 39-45, Java Applet 116 is not even mentioned. The entire paragraph refers to the web server 112 and the application server 114, which are not claimed to be equivalent to the client agent of claim 1.

Arguments against specific grounds of rejection for Claim 2

The Examiner has apparently grouped claim 2 and claim 12 and as such, these arguments are presented in support of both claims 2 and 12.

(l) The Examiner alleges that the element of "wherein the client agent further compares the request against an agent's predictive list which is generated based on the client agent analyzing the first response, and if no entry for that request for an object is found, the request is forwarded towards the server" is described in column 6 lines 10-53. The Examiner states that the pre-caching operates by first checking to see if the object requested is available prior to sending the request to the server.

As presented in Argument 1, the requests recited in the claims are not equivalent to the requests described in Klein. The cited passage of column 10, lines 10-53 is focused on requesting web pages or objects for a next requested web page. The claimed invention is focused on requesting objects for a currently requested web page.

Arguments against specific grounds of rejection for Claim 7

The Examiner has apparently grouped claim 7 and claim 17 and as such, these arguments are presented in support of both claims 7 and 17. However, the applicant makes note that these claims are actually different in that claim 7 focuses on encapsulating transmissions from the client agent to the predictive server and claim 17 focuses on encapsulating transmissions from the predictive server to the client agent.

(m) The Examiner alleges that the element of "wherein said client agent receives requests from said client and forwards the requests to said predictive unit using encapsulation" is described in column 4, lines 15-28. The Examiner states that the request is sent in web pages.

The Examiner's rejection here further highlights the fact that Klein is web page to web page transition focused. The passage cited by the Examiner does not even bear any information to support the Examiner's position. However, even if it were assumed that Klein describes encapsulating requests from a client into a web page, as implied, the applicant states that this is not relevant or applicable to the present invention. As clearly presented in paragraph [0029] of the specification, the claimed encapsulation is obtained by combining several client requests into one request packet or a series of request packets. [Paragraph 0029 and Fig. 4] Klein does not describe any such requests and, any request provided from the Java Applet 124 could not possibly be encapsulated in a web page as the Examiner suggests because web pages come from the server, not to the server.
Specifically with regards to claim 17, the applicant again presents that the encapsulation is on a packet level, not a web page level.

Arguments against specific grounds of rejection for Claim 8

The Examiner has apparently grouped claim 8 and claim 18 and as such, these arguments are presented in support of both claims 8 and 18.

(n) The Examiner alleges that the element of "wherein data transmitted between said client agent and said predictive server undergoes a data processing step selected from a group consisting of data compression, partial information transfer, protocol conversion, and data packet combining" is described in column 3, lines 59-63.

The Examiner's rejection here is unfounded. In fact, the recited passage basically states that compression, partial information transfer, protocol conversion and data packet combining is not used in Klein in that the cited passage states that the pre-caching of web pages is done without concern for computer resource utilization or utilization of the Internet. However, the recited data processing steps are performed with such concerns in mind. [See paragraph 0029 of the specification which cites these techniques are used perform communication optimization]

Arguments against specific grounds of rejection for Claim 21

The Examiner has apparently grouped claim 21 and claim 15 and as such, these arguments are presented in support of both claims 21 and 15.

(o) The Examiner alleges that the element of "wherein said client agent is further capable of issuing a re-load command" is described in column 4, lines 15-27.

The Examiner cites a passage in Klein that in essence simply states that a commercial browser can be used. Apparently, because a browser can issue a re-load command, the Examiner has relied on this in support of a rejection of this claim. However, the recited re-load is not the equivalent of a re-load or refresh command available in a commercial browser. The re-load as recited is a novel technique that enables the invention to operate with a client agent only (i.e. by passing the predictive server). Here, when the first response to the initial request is received from the server by the client agent and it is stripped of all information other than page formatting

and the list of objects need to be retrieved for the requested page, with a command to re-load all the objects for the requested web page when they are received. This re-load is executed by the client once the objects are received [See Paragraphs 0034 and 0035 of the application] The Klein reference and cited passage simply are irrelevant here.

Arguments against specific grounds of rejection for Claim 9

The Examiner has apparently grouped claim 9 and claim 19 and as such, these arguments are presented in support of both claims 9 and 19.

(p) The Examiner admits that Klein does not teach the element of "wherein the client agent is adapted to transmit a fake response to a client before a real response from said server has been received." However, the Examiner alleges that such an action is well known in the art.

The applicant submits that the Examiner has failed to show the elements of a client agent as clearly established in Argument 2. As such, the Examiner's position of official notice is not warranted in that there is absolutely no support provided by the Examiner of a client agent that transmits a fake response to a client before a real response from the server has been received. The fake response in the recited invention is in support of a process or system in allowable claims 1 and 11 and as such, to establish that such actions are well known in the art, the Examiner must first show a structure that is equivalent to the recited invention.

In view of the foregoing arguments, the applicant submits that each of the pending claims are allowable and requests the Boards favorable consideration.

Claims Appendix

The claims on appeal are presented in the attached appendix.

Evidence Appendix

No evidence is being presented under sections 1.130, 1.131 or 1.132 of the Patent Rules.

Related Proceedings Appendix

No copies of decisions rendered by a court or the Board in any proceeding identified pursuant to paragraph are being presented.

Conclusion

The applicant has presented arguments addressing each point of rejection presented by the Examiner and the errors on the part of the Examiner. The applicant submits that the presented claims are allowable and such action is sought of the Board. If the Board has any questions or if there are any actions that can be handled through an amendment, the applicant requests the Board to contact the attorney of record using the below-provided contact information.

Respectfully submitted,

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Appendix – Claims Involved In Appeal

Claim 1. (previously presented) A system for enhancing perceived throughput between a client and a server, said system comprising:

a predictive server in association with said server, wherein said predictive server comprises a server analyzer unit and a server storage unit; and

a client agent in association with the client, wherein the client agent comprises an agent analyzer unit and an agent storage unit;

wherein the predictive server analyzes, at the predictive server analyzer unit, a first response that is received from said server acting on a request for a web page and, accordingly generates at the predictive server storage unit a predictive list of requests for objects which are needed for presenting the requested web page, and wherein the predictive server further issues predictive requests to the server, receives predictive responses from the server, and forwards the first response and the received predictive responses to the client agent; and

wherein the client agent receives, with the agent analyzer unit of the client agent, via the predictive server, the first response, analyzes the first response, automatically forwards said first response to the client, receives from the client a request for an object contained in the first response and is needed for presenting the requested web page, compares the request for said object with the already received predicted responses, and when an already received corresponding predicted response exists, the existing predictive response is forwarded to the client.

Claim 2. (previously presented) The system of claim 1, wherein the client agent further compares the request against an agent's predictive list which is generated based on the client agent analyzing the first response, and if no entry for that request for an object is found, the request is forwarded towards the server.

Claims 3-6. (cancelled)

Claim 7. (previously presented) The system of claim 2, wherein said client agent receives requests from said client and forwards the requests to said predictive unit using encapsulation.

Claim 8. (previously presented) The system of claim 1, wherein data transmitted between said client agent and said predictive server undergoes a data processing step selected from a group

consisting of data compression, partial information transfer, protocol conversion, and data packet combining.

Claim 9. (previously presented) The system of claim 1, wherein the client agent is adapted to transmit a fake response to a client before a real response from said server has been received.

Claim 10. (cancelled)

Claim 11. (previously presented) A method for enhancing perceived throughput for the delivery of a requested web page between a server and a client, said method utilizing a predictive server and a client agent, said method comprising:

analyzing a first response of the server as a result of a request issued by the client for the requested web page;

generating a list of predictive requests for objects needed for presenting the requested web page based on the content of the first response;

sending the list of predictive requests toward the server;

the predictive server automatically transferring the first response toward the client by means of the client agent;

receiving at the predictive server, predictive responses from said server;

sending with the predictive server the predictive responses toward the client agent;

the client receiving the first response and issuing a first request for an object contained within the first response and is needed for presenting the requested web page, the first request is forwarded to the client agent; and

the client agent comparing the first request to the received predictive responses and, if a corresponding predictive response exists, the existing predictive response is forwarded to the client.

Claim 12. (previously presented) The method according to claim 11, further comprising by the client agent:

generating a client agent predictive list; and

comparing received requests for objects with objects listed in the client agent predictive list and if no entry for that object is in said client agent predictive list the client agent forwarding the request to the server.

Claim 13. (cancelled)

Claim 14. (cancelled)

Claim 15. (previously presented) The method according to claim 11, wherein the client agent receives the response to one of the one or more predictive requests after said client agent forwards the client's request for reload to said predictive server.

Claim 16. (cancelled)

Claim 17. (previously presented) The method according to claim 11, wherein said predictive server receives multiple predictive responses, encapsulates the multiple predictive responses and forwards the encapsulated responses to the client agent.

Claim 18. (previously presented) The method of claim 17, wherein data transmitted between said client agent and said predictive server undergoes a data processing step selected from a group consisting of data compression, partial information transfer, protocol conversion, and data packet combining.

Claim 19. (previously presented) The method of claim 11, wherein the client agent unit transmits fake responses to a client.

Claim 20. (cancelled)

Claim 21. (previously presented) The system of claim 1, wherein said client agent is further capable of issuing a re-load command.

Claim 22-33 (cance1led)